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FOR ACTION

RECOMMENDATION TO THE EXECUTIVE BOARD

Interregional programme to provide technical and other support to dracunculiasis eradication programmes

The Executive Director recommends that the Executive Board approve support to the interregional programme for dracunculiasis (guinea-worm disease) eradication efforts in 19 endemic countries for the period 1992 to 1994 in the amount of $4.5 million from general resources, subject to the availability of funds. The aim of the programme is to provide technical, programme planning, monitoring support and training assistance in establishing the surveillance systems and technical capacity required to achieve the goal of dracunculiasis eradication in this decade.

READEX FICHE

Introduction

1. Every year, dracunculiasis (guinea-worm disease) brings months of crippling pain to millions of people in 19 African countries and in parts of India and Pakistan. Highly localized, the disease affects the world's poorest and those in the least accessible villages. Approximately 85 per cent of the known cases of dracunculiasis occur in just six countries - Benin, Burkina Faso, Ghana, Mali, Nigeria and Togo - and there is believed to be a large focus in the Sudan. Other countries where guinea-worm disease is known or believed to be endemic are Cameroon, the Central African Republic, Chad, Côte d'Ivoire, Ethiopia, the Gambia, Guinea, India, Kenya, Mauritania, the Niger, Pakistan, Senegal and Uganda.

2. Dracunculiasis cannot be prevented by a vaccine or treated with drugs. However, with health education and safe water supplies the disease can be reduced drastically in a community within a few years. Complete eradication is technically possible in the 1990s. The number of reported cases in formerly highly endemic villages in Benin was reduced by 80 per cent within two years of installing hand-pump-equipped boreholes. Similarly, absenteeism in Nigerian schools in some highly endemic areas was reduced from 30 to 3 per cent within three years of the installation of covered wells and hand-pumps. In most areas, especially where over 10 per cent of working days and even larger proportions of harvests are regularly lost because of the effects of dracunculiasis, the economic benefits of eradication far outweigh the required investment. This is before additional benefits, such as the reduction in women's workloads from a new water point or improved school attendance, are considered.

Background

3. The eradication of dracunculiasis by the year 2000 is a common goal of UNICEF, the World Health Organization (WHO) and other national and international organizations. The complete elimination of the disease by the year 1995, and in some cases sooner, remains a committed goal of a number of national Governments. The eradication goal was addressed and strongly endorsed by participants at the World Summit for Children and was included in the Summit Plan of Action. The goal to eradicate dracunculiasis was endorsed in April 1981 by the Steering Committee of the International Drinking Water Supply and Sanitation Decade. It was endorsed in May 1981 by the World Health Assembly in resolution WHA 34.25 and subsequently reinforced in 1986 and 1989 in resolutions WHA 39.21 and WHA 42.29, respectively. At its 1991 session, the WHO Executive Board endorsed resolution EB87.R4 recommending to the World Health Assembly that it further endorse a combined strategy of active surveillance, health education, community mobilization, the provision of safe water, vector control and personal prophylaxis.

4. At its 1989 session, the UNICEF Executive Board included the elimination of dracunculiasis in the 1990s as an important element of "a global strategy

for the well-being of children as an essential part of overall development". At the same session, the Executive Board, endorsed a combined strategy to combat dracunculiasis and make available general resources to assist countries where it was endemic to assess the status of the disease and to accelerate UNICEF activities in support of the goal (E/ICEF/1989/12, decision 1989/7). At its 1991 session, the WHO/UNICEF Joint Committee on Health Policy (JCHP) reviewed the status of activities within endemic countries and endorsed recommendations calling for substantially expanded technical collaboration and networking activities between WHO and UNICEF to develop and evaluate new approaches to overcome knowledge gaps in operational areas (see E/ICEF/1991/L.15). A review of UNICEF-supported actions to date appears in the report of the Executive Director (E/ICEF/1991/2 (Parts I and II)). A more detailed report submitted to JCHP is available in JC28/91/13.

Status of the global eradication effort

5. During the past year, significant progress was made towards the goal of eradicating dracunculiasis in the 1990s. In general, activities have been characterized by excellent cooperation and coordination between national and international agencies. WHO and UNICEF have assigned full-time staff to follow up and strengthen the action of national dracunculiasis eradication programmes. At the global level, technical coordination is provided at WHO headquarters at Geneva by a medical parasitologist in the Division of Control of Tropical Disease and at UNICEF New York headquarters, by a senior adviser in the Programme Division. In Africa, WHO, with the support of the Government of the Netherlands, has assigned a medical epidemiologist as associate Professional officer to Bamako and UNICEF has appointed project officers in Lagos. WHO and UNICEF staff collaborated to assist national programmes to prepare and carry out national surveys and plans of action.

6. National surveys are now complete or substantially under way in countries where an estimated 85 per cent of the world's cases of dracunculiasis occur. Financial and technical support for the surveys came from Global 2000 of the Carter Presidential Center in Atlanta, Georgia (United States); the United Nations Development Programme (UNDP); UNICEF; WHO (Geneva); and the WHO Collaborating Centre at the United States Centers for Disease Control (CDC), Atlanta, Georgia. Other active agency collaborators include several bilateral cooperation agencies and non-governmental organizations (NGOs). The inter-agency dracunculiasis eradication coordinating group meets every quarter to review the status of each agency's activities to ensure a harmonious distribution of tasks.

7. Following 1989 Executive Board action, dracunculiasis eradication activities have been substantially accelerated in most endemic countries as noted below.

8. In Benin, a rural water project, jointly financed by UNICEF and the United States Agency for International Development (USAID) and undertaken with United States Peace Corps participation, has lowered dracunculiasis incidence

in Northern Zou province by nearly 50 per cent in two years. UNICEF funded the first national survey, which was also completed with United States Peace Corps assistance. The results are being interpreted and an inter-agency evaluation of the programme is under way.

9. In Burkina Faso, a national survey proposal, developed with the assistance of a UNICEF-supported WHO/CDC consultant, was subsequently funded by UNICEF. The survey began in mid-October. The Organization for Cooperation and Coordination in the Control of Major Endemic Diseases assisted in training and will monitor survey data analysis.

10. Cameroon organized a national dracunculiasis day in Mora (North Province) on 4 June 1990 and national efforts will now focus on eradicating the disease by 1992 in a number of persistently endemic villages in the Mandar Mountains; CDC, Global 2000, the Pasteur Centre, UNICEF, the universities of Yaounde, Bordeaux and Tulane, USAID, the United States Peace Corps and WHO, together with several NGOs, are playing a major role in this operation. The approach combines health education with chemical vector control (using Temephos/Abate) and the development of safe drinking water sources.

11. In Chad, a national survey proposal, prepared with the assistance of a UNICEF-supported WHO/CDC consultant, is currently under review.

12. The Ministry of Health in Côte d'Ivoire prepared a national survey proposal with the assistance of a UNICEF-supported WHO/CDC consultant. The survey, subsequently funded by UNICEF, is currently under way.

13. In Ghana, the second national case search revealed 170,000 cases, mainly in three northern provinces. UNICEF is now supporting a Ministry of Health/WHO/CDC field evaluation of a slow release chemical formulation (Temephos) to control the intermediate host of dracunculiasis.

14. Guinea reported only a single dracunculiasis case in 1989, believed to be imported, and is seeking to begin the WHO process of certifying elimination.

15. In India, UNICEF and the Swedish International Development Authority are assisting an integrated rural development project in Rajasthan, the State most seriously affected by dracunculiasis, which accounts for more than one half of the country's cases. A combination strategy has produced a nearly 40 per cent reduction in incidence per year in programme districts.

16. Only five cases were confirmed in Kenya during a national survey of health centres by the Ministry of Health, supported by UNICEF.

17. In Mali, a national survey proposal prepared with WHO and UNICEF technical assistance was subsequently funded by UNICEF and is currently under way. The national eradication programme is also under way, with assistance from three NGOs in three pilot zones. UNICEF has begun targeting endemic villages for health education and water supply interventions.

18. Mauritania drew up a national plan of action with WHO technical assistance. A proposal for a national case search was developed with WHO and UNICEF providing assistance and is currently under way with UNICEF financial support.

19. The second national search identified 650,000 cases in Nigeria in 1989. UNICEF is currently accelerating eradication efforts in 14 local government areas in three of the most endemic states. Global 2000, the Japanese International Cooperation Agency, UNDP/World Bank, UNICEF, WHO and federal, state and local authorities are all active in the national eradication effort.

20. Togo prepared a national plan of action and a survey proposal with WHO and UNICEF assistance. The survey is currently under way with WHO and UNICEF financial assistance.

21. Other UNICEF-supported activities included an informal consultation in February 1990 at WHO headquarters on the criteria for certification of the elimination of dracunculiasis, attended by representatives of 23 endemic and formerly endemic countries and about 12 experts. The Third Regional Conference on Dracunculiasis in Africa, held in March 1990 at Yamoussoukro, Côte d'Ivoire, brought together some 120 participants, including representatives of 17 African countries and India, representatives of the sponsoring agencies - Global 2000, UNDP, UNICEF and WHO - and additional cooperating organizations, including the Organization of African Unity.

Operational obstacles

22. There are two major factors that complicate efforts to control and eliminate dracunculiasis, particularly in Africa. First, it is a highly localized disease, usually affecting small, generally poorer villages remote from the formal health infrastructure. Therefore, unit costs for interventions, particularly for safe water, are high. To eradicate the disease, even the most remote and isolated foci must be identified. Second, while dracunculiasis endemicity can be substantially reduced in a village following the provision of a safe water source, complete elimination of the disease requires sustained disease surveillance, health education and community mobilization programmes for three to six years. The operational challenge is effectively to combine health education and community mobilization approaches with simple, low-cost technologies currently available in these "least-reached" villages.

23. As control and eradication programmes have accelerated, knowledge gaps have become more evident, particularly in operational areas. Substantially expanded technical collaboration and programme support activities are required to overcome these problems and achieve the eradication goal. The major challenge of the dracunculiasis eradication programme is to develop the capacity - both internal and external to UNICEF - required to coordinate multiple interventions and target them to specific population subgroups to maximize the impact of available resources.

24. The interregional programme for dracunculiasis eradication will focus on the following:

(a) Community surveillance methodologies. At the core of both the eradication and verification strategy is the requirement for low-cost, community-based disease surveillance;

(b) Mapping of remote villages. A problem common to the dracunculiasis eradication programme and other disease control programmes (such as the expanded programme on immunization and Ivermectin distribution to control river blindness) in endemic areas is that many small villages and hamlets do not appear on any maps. New technologies offer much promise, as has been demonstrated with preliminary work supported by UNICEF in Benin;

(c) Strategies for targeting and monitoring the impact of water supply. In contrast to the situation in "high" and "very high" endemic villages, the impact of new water supply in "low" and "very low" endemic villages is much less substantial. Further evaluation of the impact of water supply is required, and technical assistance will be required so that more effective and cost-efficient targeting strategies can be developed, particularly for small settlements of 50 to 150 people;

(d) Vector control strategies. Technical and training assistance is required to optimize local strategies for the efficient use of Temephos, a safe and effective chemical treatment that kills the intermediate host for the dracunculiasis larvae in ponds and other sources;

(e) Case containment strategies. As countries near the eradication goal, the unit cost per case prevented rises substantially, just as interest in dracunculiasis as a public health problem tends to decline significantly. Effective case containment strategies need to be developed that will reduce the unit cost and minimize the time required for a country to move from "very low endemicity" to "elimination". Activities in India and Pakistan, including a surgical extraction procedure developed there, and planned activities in Cameroon provide both challenge and opportunity in this regard.

25. The above issues and others, particularly the coordination and integration of dracunculiasis eradication efforts with other public health interventions, will require further evaluation. They provide important new areas for inter-agency collaboration and promise results with broad health interest and impact.

Proposed actions and funding requirements

26. Proposed UNICEF support at the global, regional and country levels includes:

(a) Programme and technical service support costs to develop and implement further in priority areas a community-based surveillance system

supported at district and central levels with appropriate management and geographic information systems;

(b) Training, technical and programme support in the development and implementation of health communication interventions to promote effective personal prophylaxis and community action to control dracunculiasis, and improved targeting and diversification in providing safe water interventions;

(c) Salary and support costs for the full-time post of programme assistant to facilitate communication and assist in coordinating actions among UNICEF offices and collaborating agencies;

(d) Salary and support costs for two senior-level epidemiologists to be posted in Africa to provide programme support and technical assistance in strengthening epidemiological capacity in endemic areas;

(e) Part-time salary and support costs for several country-based UNICEF project officers to help to improve the exchange of technical support and the sharing of technical resources between countries;

(f) Operational and technical support to innovative pilot and demonstration programme activities in priority countries;

(g) Support for operations research activities, and increased training in the priority areas identified in paragraph 24 above;

(h) Support to consultations and technical working groups, in close cooperation with WHO and other agencies;

(i) Support to the dracunculiasis operations research network and to the WHO Dracunculiasis Eradication Programme.

27. In view of the above, the Executive Director recommends that the Executive Board approve support to the interregional programme for drancunculiasis eradication efforts in 19 endemic countries for the period 1992 to 1994 in the amount of $4.5 million from general resources, subject to the availability of funds. The proposed phasing of the commitment is as follows:

Table 1. Breakdown of estimated budget allocation

(In thousands of United States dollars)

General resources	1992	1993	1994	Total
Global and regional activities	950	850	800	2 600
Country activities	550	650	700	1 900
Total	1 500	1 500	1 500	4 500

Table 2. Reported cases of dracunculiasis by year, 1985-1989

Country	1985	1986	1987	1988	1989
Benin	...	...	400	3 962	5 692
Burkina Faso	458	2 558	1 957	1 266	5 122
Cameroon	168	86	...	752	871
Central African Republic	31	---	1 322	...	...
Chad	9	314	...	...	...
Côte d'Ivoire	1 889	1 177	1 272	1 370	1 555
Ethiopia	1 467	3 385	2 302	751	...
Gambia	---	---	---	...	...
Ghana	4 501	4 717	18 398	71 767	179 670
Guinea	---	---	---	...	1
India	30 950	23 070	17 031	12 023	7 881
Kenya	...	...	...	...	5
Mali	4 072	5 640	435	564	483
Mauritania	1 291	...	227	608	447
Niger	1 373	...	699	...	...
Nigeria	5 234	2 821	216 484	653 492	640 008
Pakistan	...	...	2 400	1 111	535
Senegal	62	128	132	138	...
Sudan	...	822	399	542	...
Togo	1 456	1 325	...	178	2 749
Uganda	4 070	...	...	...	124

... No data available.

--- Zero cases reported.